ABSTRACT

GRAPHITE AND NITROGEN-FREE CAST ALLOYS

The present invention is related to an air melted, substantially graphite and nitrogen-free alloy, aged or not aged by precipitation hardening, specially adapted for gas turbine or internal combustion engine exhaust system parts, comprising a graphite-free microstructure of the following composition:

Carbon	max 0.4 wt.%
Silicon	0.5 to 6 wt.%
Manganese	0.1 to 4.5 wt.%
Phosphorous	0.01 to 0.08 wt.%
Nickel	13 to 38 wt.%
Chromium	0 to 6 wt.%
Sulphur	max 0.12 wt.%
Nitrogen	max 0.02 wt.%
Iron	balance